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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,793	03/30/2001	Sanghoon Lee	Lee 1-17	7445

7590 04/17/2003

Law Offices of Jean-Marc Zimmerman
226 St. Paul Street
Westfield, NJ 07090

EXAMINER

BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
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2672

9

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,793

Applicant(s)

LEE ET AL.

Examiner

Jeffery A. Brier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-25,31-34,36 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-25,31-34,36 and 38-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/05/03 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 20, 23, 24, 31, 33, 34, 36, 39, and 40 are rejected under 35 U.S.C. 102(a) as being anticipated by the IEEE article by Sanghoon Lee, Chris Podilchuk, Vidhya Krishnan and Alan C. Bovik et al. titled Unequal Error Protection for Foveation-Based Error Resilience over Mobile Networks, 2000, IEEE, vol. 2, pgs. 140-143. The two inventors of this application are common to the authors of the article, however, since the article has four authors, this article meets the “by others” of 102(a).

Claim 20:

This article describes a method for partitioning a video image between a foveated area and a background area in section 2. at pages 140-141. The article describes

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defining a foveation point in the video image and a foveated area in proximity to said foveation point in the abstract on page 140. Also described is extracting a first plurality of data signals from said video image representing the foveated area and extracting a second plurality of data signals from said video image representing a background area at page 140 second column second full paragraph lines 6-8. Encoding the extracted first plurality of data signals with a first error correction protocol to create a first encoded signal and encoding the extracted second plurality of data signals with a second error correction protocol different from the first error correction protocol to create a second encoded signal is described at page 140 second column second full paragraph lines 11-21.

Claim 23:

This claim is described by the article at page 141 first column in the first full paragraph and in figure 4.

Claim 24:

This article does not explicitly describe packetizing the first encoded signal with inserted synchronization markers occurring after a first predetermined number of bits; and packetizing the second encoded signal with the inserted synchronization markers occurring after a second predetermined number of bits wherein the first number is smaller than the second number, however, this is inherent since packets have synchronization markers and since different error correction protocols are being used with different levels of error correction the location of the synchronization markers in the different bit streams would be different.

Claim 31

This article describes wherein the first plurality of data signals comprises all pixel signals included in a high-resolution area of said video image at page 140 second full paragraph lines 9-11.

Claim 33:

The article describes the first error correction protocol comprises at least one of FEC (forward error correction) algorithms, ARQ (automatic repeat request) algorithms or error resiliency conforming to video communications industry standards H263++ and/or MPEG-4 at page 140 second column second full paragraph.

Claim 34:

The article describes the second error correction protocol comprises at least one of FEC (forward error correction) algorithms or error resiliency conforming to video communications industry standards H263++ and/or MPEG-4 at page 140 second column second full paragraph.

Claim 36:

The article describes this claim at page 141 in the paragraph preceding section 3.

Claim 39:

The hybrid ARQ using FEC described at page 141 in section 3.3 teaches this claim.

Claim 40:

The unequal delay-constrained ARQ described at page 141 in section 3.1 teaches this claim.

4. Claims 20-25, 31-34, 36, 38, and 40 are rejected under 35 U.S.C. 102(a) as being anticipated by the IEEE article by Sanghoon Lee, Chris Podilchuk, and Alan C. Bovik et al. titled Foveation-Based Error Resilience for Video Transmission over mobile Networks, 2000, IEEE, vol. 10, pgs.1451-1454. The two inventors of this application are common to the authors of the article, however, since the article has three authors, this article meets the "by others" of 102(a).

Claim 20:

This article describes a method for partitioning a video image between a foveated area and a background area in section 1 at pages 1451. The article describes defining a foveation point in the video image and a foveated area in proximity to said foveation point in the abstract on page 1451. Also described is extracting a first plurality of data signals from said video image representing the foveated area and extracting a second plurality of data signals from said video image representing a background area at page 1451 second column first full paragraph. Encoding the extracted first plurality of data signals with a first error correction protocol to create a first encoded signal and encoding the extracted second plurality of data signals with a second error correction protocol different from the first error correction protocol to create a second encoded signal is described at page 1451 second column second full paragraph.

Claims 21 and 22:

This article describes eye tracking to determine the foveation point at page 1451 second column first full paragraph.

Claim 23:

This article describes using the average local bandwidths in each macroblock to determine the foveation area and inherently macroblocks having a bandwidth above a threshold is in the foveation layer see page 1451 second column first full paragraph and page 1452 section 2.2 second paragraph.

Claim 24:

This claim is taught by the article on page 1452 section 2.5.

Claim 25:

Lines 1-13 of this claim are the same as claim 20, thus, the discussion of claim 20 applies to lines 1-13. Lines 14-19 is met by the packet priority at page 1452 second column line 5 of the second paragraph of section 2.4 and by section 2.4 as a whole along with section 2.3.

Claim 31:

This article describes wherein the first plurality of data signals comprises all pixel signals included in a high-resolution area of said video image at page 1451 third full paragraph lines 1-5.

Claim 32:

This article describes wherein the first plurality of data signals comprises all pixel signals included in a high motion area of said video image at page 1451 second column

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lines 8-11 of the first paragraph of section 2.1. Related objects that the user will gaze to would inherently includes objects of motion since the eye detects motions and focuses on moving objects instinctively.

Claim 33:

The article describes the first error correction protocol comprises at least one of, ARQ (automatic repeat request) algorithms or error resiliency conforming to video communications industry standards H263++ and/or MPEG-4 at page 1453 sections 2.3 and 3.

Claim 34:

The article describes the second error correction protocol comprises at least one error resiliency conforming to video communications industry standards H263++ and/or MPEG-4 at page 1453 sections 2.3 and 3.

Claim 36:

This claim is taught at page 1453 second paragraph of section 3.

Claim 38:

This claim is taught in section 4 at page 1453.

Claim 40:

This claim is taught in section 3 at page 1453.

Response to Arguments

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A. Brier whose telephone number is (703) 305-4723. The examiner can normally be reached on M-F from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713).

Any response to this action should be mailed to:

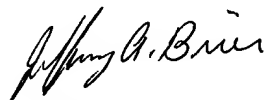
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Jeffery A Brier
Primary Examiner
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